

STUDIES IN THE WEEVILS OF THE WESTERN UNITED STATES NO. IV: A NEW SPECIES OF CIMBOCERA⁽¹⁾

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CIMBOCERA PETERSONI Tanner, new species

FEMALE: Body oblong and robust. Rostrum moderately constricted at base, median and lateral sulci well developed but obscured by imbricate spatulate vari-colored scales which cover all parts of the body and appendages except the clubs of the antennae which are brownish due to a fine vestiture of setae; twice as long as wide at base, distal one and one half times as wide as base. Thorax widest at base; lateral and median vittae of whitish roundish scales. Elytral striae prominent, eleven at middle, intervals smooth and covered with lead-colored scales among which are interspersed whitish ones. The intervals contiguous to the suture are covered with whitish scales which tend to develop a vittae appearance in some specimens. The body and appendages have erect whitish setae which arise from between the scales. On the elytral intervals there is a semblance of two rows of setae to each interval. The length of the body from the prothorax to the apex of the elytra in the type is 8.6 mm; greatest body width 4 mm. Two females before me are only 5 mm. in length. Figure 1.

The female genitalia, as shown in Figure 2, is similar to *pauper*, of this genus, according to illustrations by Ting, (1940).⁽²⁾ The styli are modified as in *C. pauper*. In *petersoni* the valvifers and coxites are distinct but not so heavily sclerotized as in *pauper*. The genitalia of *C. buchanani* Figure 2c. is similar to *C. petersoni* and *pauper* except for the styli and fused coxite and valvifer. This type of genitalia is used to deposit eggs on leaf or stem surfaces or in open cracks of plants. The spermatheca of *petersoni* is similar to *buchanani*, Figure 2f. The hind tibia of *C. petersoni* is shown in Figure 2g.

(1) Contribution No. 88, Department of Zoology and Entomology, Brigham Young University.

(2) Ting, P. C., 1940. Revisional Notes Concerned with Cimbecera and Related Genera. Bull. So. Calif. Acad. Sci., Vol. 39, part 2, pp. 128-157, Pls. 24-26. December 15, 1940.

MALE. The male of this species may readily be distinguished from the female by the thorax being widest at the middle and the dense long whitish setae of the thorax and elytra. In the three males before me the woolly setae of the elytra has a length of 1.8 mm, which gives the males a marked bearded appearance over that of the females. The third tarsal segment, especially of the first and second legs, is well developed being about twice as long as in the female. The male

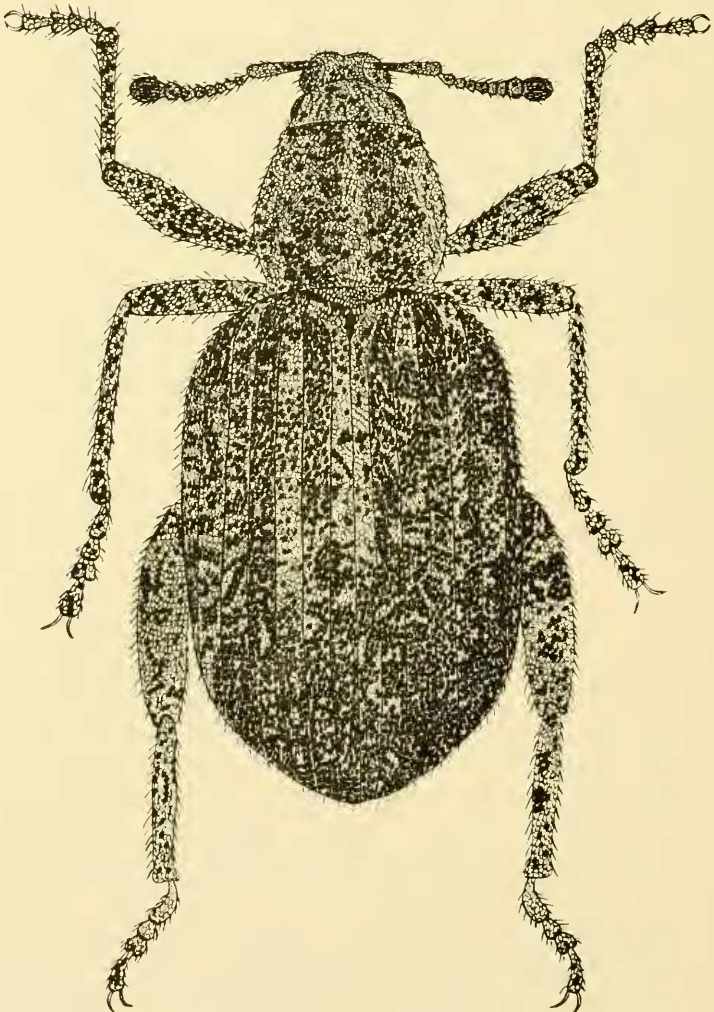


Fig. 1. Drawing of holotype, *Cimbochera petersoni*, new species
10 times.

genitalia, Figure 2d and e, are different to any other species of this and related genera which have been studied. The length of the male from the prothorax to the apex of the elytra is 7.5 mm.

If we follow the key to species of *Cimbocera* as prepared by Mr. Peter Ting (1940), *petersoni* may be separated from other species as follows:

- 1. Tarsal bristles and tibial spinules pitch black. Pronotum slightly tuberculate.....*buchanani* Ting
- Tarsal bristles and tibial spinules yellow or reddish brown. Pronotum smooth.....2
- 2. Rostral setae length subequal with head setae. Rostrum with narrow median sulcus; slightly constricted at base and one-third to one-half longer than broad. Color predominantly dark brown.....*pauper* Horn.
- Rostral setae equal in length with the head setae. Rostrum with well developed median and lateral sulci; moderately constricted at base and distal one and one-times as wide as base. Color greyish with some specimens having distinct light and dark vittae on thorax and elytra; setae short in females, long in males.....*petersoni*, new species
- Rostral setae only one-fourth length of head setae. Rostrum without median sulcus; greatly constricted at base and not, or only slightly, longer than broad. Color grey mottled brown or black.....*conspersa* Fall

TYPE LOCALITY: The Virgin River at St. George, Washington County, Utah. Ten specimens were collected in 1892, by Mr. C. J. Weidt, which are from the Charles W. Leng Collection. The writer collected six specimens in March and April, 1921 and 1922 at St. George, elevation 3,000 feet; one specimen at Washington, Washington County, Utah in April 1921; and one specimen, a female, at Indianola, Sanpete County, Utah, elevation 6,200 feet, in June 1919. I also have before me one specimen collected at St. George by A. M. Woodbury. The type and twelve paratypes, on pins, are in the writer's collection at Brigham Young University. Two paratypes were sent to Mr. L. L. Buchanan of the U. S. National Museum, Washington, D. C. and one paratype was deposited in the Entomological collection of the California Academy of Sciences at San Francisco.

This species is named in memory of Mr. Mervin H. Peterson, an alumnus of Brigham Young University. Mr. Peterson was born at Payson, Utah, on December 4, 1908. He graduated from the Payson

High School in 1927 and the Brigham Young University, with an A. B. degree with a major in Zoology, in 1936. In 1936-37 he was a graduate assistant in Zoology. He died in May, 1937 following a goiter operation. Mr. Peterson was a very capable and promising student of Zoology. At the time of his death, he was working on the phylogeny of the weevils.

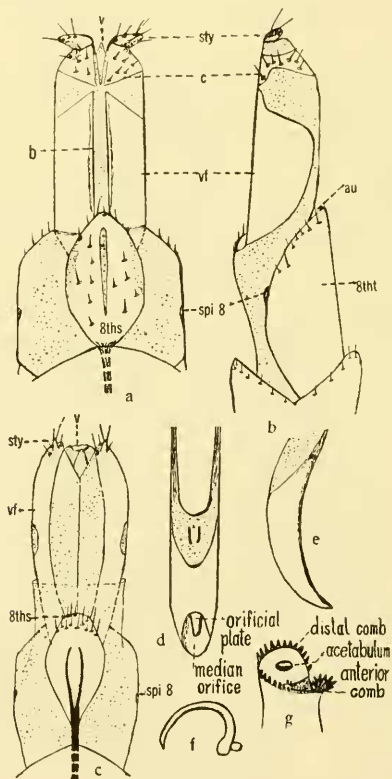


Fig. 2. Genitalia of *Cimbochera petersoni*. a. ventral view of female genitalia; b. lateral view of female genitalia; c. ventral view of female genitalia of *Cimbochera buchanani*, a closely related species; d. and e. dorsal and lateral views of male genitalia of *Cimbochera petersoni*; f. spermatheca of *Cimbochera petersoni*; g. apice of hind tibia of *Cimbochera petersoni*.